

CLAIMS:

1. A method for providing a user operating a telephony communications device with connectivity to a data site over a communication line, wherein the user can
5 communicate with other parties through the communication line when the user is connected to the data site through the communication line, wherein a first telephone number is used to access the telephony communications device, the method comprising:

10 the telephony communications device connecting to the data site;

the data site assigning a second telephone number to the user;

15 instructing a telephone company central office to route telephone calls made to the first telephone number to the second telephone number at the data site;

wherein telephone calls made to the first telephone number of the user telephony communications device are routed to the second telephone number at the data site and are further routed to the telephony communications device.

20 2. The method of claim 1, wherein said instructing comprises the data site performing a forwarding operation to forward telephone calls made to said first telephone number which are intended for the user, wherein said forwarding operation operates to cause said telephone calls to said first telephone number to be forwarded to said assigned second
25 telephone number.

3. The method of claim 1, wherein said instructing comprises the data site performing a call forwarding operation to call forward telephone calls made to said first
30 telephone number which are intended for the user, wherein said call forwarding operation

operates to cause said telephone calls to said first telephone number to be forwarded to said assigned second telephone number.

- 5 4. The method of claim 1, wherein said instructing comprises the telephony communications device performing a forwarding operation to forward telephone calls made to said first telephone number which are intended for the user, wherein said forwarding operation operates to cause said telephone calls to said first telephone number to be forwarded to said assigned second telephone number.

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5. The method of claim 1, further comprising:

the user telephony communications device performing data transfers with the remote
15 data site using said communications line after said connecting;

the remote data site receiving a telephone call forwarded to said assigned second
telephone number, wherein said telephone call includes voice data;

20 the data site transferring said voice data from said telephone call forwarded to said
assigned second telephone number to the user telephony communications
device using said communications line.

- 25 6. The method of claim 5, wherein the data site transfers said voice data from
said telephone call to the user telephony communications device using said communications
line during said user telephony communications device performing data transfers with the
remote data site using said communications line.

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7. The method of claim 1, further comprising:

the user telephony communications device performing data transfers with the data site using said communications line after said connecting;

5 a party placing a telephone call to the user using the first telephone number;

forwarding the telephone call placed to the first telephone number to said assigned second telephone number;

10 the remote data site receiving said telephone call forwarded to said assigned second telephone number, wherein said telephone call includes voice data;

the remote data site transferring said voice data from said telephone call forwarded to said assigned second telephone number to the user telephony communications device using said communications line.

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8. The method of claim 7, wherein the data site transfers said voice data from said telephone call to the user telephony communications device using said communications line during said user telephony communications device performing data transfers with the remote data site using said communications line.

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9. The method of claim 1, further comprising:

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the user telephony communications device providing identification information to a server at the data site after said user telephony communications device connecting to the data site.

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10. The method of claim 9, further comprising:

the data site determining if the user telephony communications device which has said assigned second telephone number is currently connected to the remote data site after the remote data site receives said telephone call to said assigned second telephone number and prior to said routing;

wherein the remote data site routes said received telephone call to the user telephony communications device in response to said determining that the user telephony communications device which has said assigned second telephone number is currently connected to the remote data site.

11. The method of claim 1, further comprising:

the user telephony communications device performing data transfers with the remote data site using said communications line after said connecting;

the remote data site receiving a telephone call forwarded to said assigned second telephone number, wherein said telephone call includes voice data;

the remote data site compressing said voice data to produce compressed voice data;

the remote data site transferring said compressed voice data from said telephone call forwarded to said assigned second telephone number to the user telephony communications device using said communications line.

12. The method of claim 1, wherein the telephony communications device connects to a server at the data site, and wherein the server at the data site assigns a second telephone number to the user.

13. The method of claim 12, wherein said instructing comprises the server at the data site performing a forwarding operation to forward telephone calls made to said first telephone number which are intended for the user, wherein said forwarding operation
5 operates to cause said telephone calls to said first telephone number to be forwarded to said assigned second telephone number.

10 14. The method of claim 13, wherein said forwarding operation is a remote access call forwarding operation.

15 15. The method of claim 1, wherein said user telephony communications device is a telephone modem which has simultaneous voice and data transfer capabilities

16. The method of claim 1, wherein the data site is an Internet Service Provider, wherein the user is able to receive telephone calls from a third party while
20 transmitting/receiving Internet traffic to/from the Internet Service Provider.

17. A communication server located at a remote data site which provides a user operating a telephony communications device with connectivity to the remote data site over a
25 communication line, wherein the user can communicate with other parties through the communication line when the user is connected to the communication server through the communication line, the communication server comprising:

at least one first input/output (I/O) port for coupling to a communication line, wherein
the first I/O port is operable for coupling through the communication line to a
30 user telephony communications device connected to the communication line,
wherein the user telephony communications device is accessible by a first

telephone number, wherein the user telephony communications device is located remotely from the remote data site, wherein the communication server is operable to perform communications with the user telephony communications device;

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forwarding logic for performing a forwarding operation which operates to forward telephone calls made to said first telephone number, wherein said forwarding operation operates to cause said telephone calls to said first telephone number to be forwarded to an assigned second telephone number at the remote data site;

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at least one second I/O port for coupling to a second communication line, wherein the second communication line is accessible by said second telephone number, wherein the second I/O port is operable to receive telephone calls made to said first telephone number and forwarded to said second telephone number, wherein the communication server is operable to route said telephone calls forwarded to said second telephone number through said first I/O port to said user telephony communication device;

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wherein the communication server is operable to enable the user telephony communications device to be able to receive telephone calls from other parties on said communication line while the user telephony communications device is connected to the communication server at the remote data site on said communication line.

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18. The communication server of claim 17, wherein the communication server is operable to receive a telephone call forwarded to said second telephone number, wherein said telephone call includes voice data, wherein the communication server is operable to transfer said voice data to said user telephony communication device on said communications line

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while said user telephony communications device is performing data transfers with the communication server at the remote data site using said communications line.

5 19. The communication server of claim 18, further comprising:

data compression logic for compressing said voice data to produce compressed voice data, wherein the communication server is operable to transfer said compressed voice data to said user telephony communication device on said communications line while said user telephony communications device is performing data transfers with the remote data site using said communications line.

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15 20. The communication server of claim 18, wherein the communication server further includes:

routing logic for routing calls forwarded to said second telephone number to said user telephony communication device.

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21. The communication server of claim 20, wherein the communication server further includes:

25 connection status logic for determining if the user telephony communications device which has said assigned second telephone number is currently connected to the remote data site when a telephone call to said assigned second telephone number is received;

30 wherein the connection status logic is coupled to the routing logic and directs said routing logic to route said received telephone call to the user telephony

communications device if the connection status logic determines that the user telephony communications device which has said assigned second telephone number is currently connected to the remote data site.

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22. The communication server of claim 17, wherein said forwarding operation is a call forwarding operation.

23. The communication server of claim 17, wherein said forwarding operation is
10 a remote access call forwarding operation.

24. The communication server of claim 17, wherein the communication server is
operable to assign a second telephone number to the user telephony communication device.
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25. The communication server of claim 17, wherein the communication server is
operable to dynamically assign the second telephone number to the user in response to the
user telephony communications device connecting to the remote data site.
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26. The communication server of claim 17, wherein the communication server
further comprises a memory for maintaining a plurality of telephone numbers for assigning,
wherein said plurality of telephone numbers are assignable to users who connect to the
25 remote data site.

27. The communication server of claim 17, wherein the communication server is operable to receive authentication information from the user telephony communications device; wherein the communication server includes:

5 a memory for storing said identification information received from said user telephony communications device;

authentication logic coupled to said memory for authenticating the user telephony communications device in response to the user telephony communications device providing said authentication information to the remote data site.

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28. The communication server of claim 17, wherein the communication server is operable to receive subscription information from the user telephony communication device to enable usage of the remote data site; wherein the communication server includes:

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a memory for storing said subscription information received from said user telephony communications device;

20 wherein the communication server is operable to assign the second telephone number to the user in response to the communication server receiving said subscription information from the user telephony communication device.

25 29. The communication server of claim 17, wherein said communication server includes a digital simultaneous voice and data (DSVD) telephone modem which has simultaneous voice and data transfer capabilities.

30. A method for providing a user operating a telephony communications device with connectivity to a remote data site over a communication line, wherein the user can communicate with other parties through the communication line when the user is connected to the remote data site through the communication line, wherein the telephony
5 communications device includes a first telephone number, the method comprising:

the user telephony communications device connecting to the remote data site;

the remote data site assigning a second telephone number to the user;

10 the remote data site performing a forwarding operation which operates to forward telephone calls made to said first telephone number, wherein said forwarding operation operates to cause said telephone calls to said first telephone number to be forwarded to said assigned second telephone number.

15 31. The method of claim 30, further comprising:

the user telephony communications device performing data transfers with the remote
20 data site using said communications line after said connecting;

the remote data site receiving a telephone call forwarded to said assigned second telephone number, wherein said telephone call includes voice data;

25 the remote data site transferring said voice data from said telephone call forwarded to said assigned second telephone number to the user telephony communications device using said communications line.

32. The method of claim 31, wherein the remote data site transfers said voice data from said telephone call to the user telephony communications device using said communications line during said user telephony communications device performing data transfers with the remote data site using said communications line.

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33. The method of claim 31, further comprising:

the remote data site determining if the user telephony communications device which
10 has said assigned second telephone number is currently connected to the remote data site after the remote data site receiving said telephone call to said assigned second telephone number and prior to said routing.

15 34. The method of claim 33, wherein the remote data site routes said received telephone call to the user telephony communications device in response to said determining that the user telephony communications device which has said assigned second telephone number is currently connected to the remote data site.

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35. The method of claim 30, wherein said communication line is a telephone line.

25 36. The method of claim 30, wherein said forwarding operation is a call forwarding operation.

37. The method of claim 30, further comprising:

the user telephony communications device performing data transfers with the remote data site using said communications line after said connecting;

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the remote data site receiving a telephone call forwarded to said assigned second telephone number, wherein said telephone call includes voice data;

the remote data site compressing said voice data to produce compressed voice data;

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the remote data site transferring said compressed voice data from said telephone call forwarded to said assigned second telephone number to the user telephony communications device using said communications line.

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